



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/613,426	07/10/2000	Hirofumi Ando	Q60058	9344

7590 09/20/2005

Sughrue Mion Zinn Macpeak & Seas
2100 Pennsylvania Avenue NW
Washington, DC 20037-3202

EXAMINER

PARK, CHAN S

ART UNIT	PAPER NUMBER
----------	--------------

2622

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/613,426

Applicant(s)

ANDO, HIROFUMI

Examiner

CHAN S. PARK

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119


- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____


EDWARD COLES
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

DETAILED ACTION

Response to Amendment

1. Applicant's amendment was received on 6/23/05, and has been entered and made of record. Currently, **claims 1 and 4-21** are pending.

Response to Arguments

2. Applicant's arguments filed 6/23/05 have been fully considered but they are not persuasive.

In response to applicant's arguments regarding the rejection of claim 9 (applicable to the independent claims), wherein on page 2, the applicant explains how the current invention differs from the teachings Kajita et al. U.S. Patent No. 6,069,706 (hereinafter Kajita). Particularly, the applicant states,

Applicants respectfully submit that the Examiner acknowledges that Kajita et al. does not explicitly disclose a plurality of logical channels. Further, Applicants note that the parallel processing suggested in Kajita et al. can be performed without use of a plurality of logical channels, such as using a plurality of signal lines. Thus, it is also not inherent to use a plurality of logical channels to perform the parallel processing of Kajita et al. Accordingly, Applicants submit that Kajita et al. fails to disclose (either explicitly or implicitly) the logical channels, let alone a combination of the plurality of logical channels and a normal communication.

The applicant states that it is not inherent to use a plurality of logical channels to perform the parallel processing of Kajita. Examiner respectfully disagrees. First, the applicant acknowledges that Kajita teaches/suggests using a plurality of signal lines in the parallel processing. Furthermore, as it is well known to one of ordinary skill in the art, the parallel processing *requires* at least two or more signal lines. Examiner notes

that the plurality of signal lines can be read as the plurality of logical channels.

Referring to the definition of "channel" in the IEEE dictionary, a channel is defined as "a single path for transmitting electric signal, usually in distinction from other parallel paths" (page 146). Thus, by the applicant's acknowledgement and the teaching of Kajita, a plurality of logical channels is inherently shown the system of Kajita. Although the process performed by the current invention might be different than what Kajita teaches, this difference is not apparent in the current claim wording. Hence, the previous rejection under the inherency is proper and should be maintained.

With respect to claim 13, it is noted that the features upon which applicant relies (i.e., the plurality of logical channels) are not recited in the rejected claim. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

3. Therefore, the rejections of claims 1 and 4-21, as cited in the Office Action dated 2/23/05 are maintained and repeated in this Office Action.

Claim Objections

4. Claim 4 is objected to because of the following informalities:

“means being responsive...” should be replaced with “means for being responsive.”

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 9-14 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Kajita.

5. With respect to claim 9, Kajita discloses a printer for receiving print data from a host and printing the print data and also printing an original image input through image read means contained in said printer, said printer comprising:

a data reception section (communication circuit 4 in fig. 3);

an interpretation section that can interpret a command proper to said printer (col. 4, lines 59-67); and

an interface unit (control unit 5) comprising: (i) data flow control means for controlling transfer of data between the host and said data reception section and transfer of data between the image read means and the host using a plurality of logical channels (co. 11, lines 36-44 & col. 12, lines 13-23), and (ii) image data read and conversion means for converting image data read from the image read means without an intervention of the host into a command that can be interpreted by said interpretation section (image processing unit 14) and sending the converted command to said data reception section using normal communication (col. 4, lines 51-58), the plurality of logical channels and the normal communication allowing for the printer to respond to a plurality of requests simultaneously (col. 12, lines 13-23),

wherein the print data from the host is received at said data reception section under a control of the data flow control means and is interpreted by said interpretation section, then is expanded into image data and the image data is printed (col. 4, lines 59-67), and the command converted by the image data read and conversion means is received at said data reception section and is interpreted by said interpretation section, thereby expanding into the same image data as the image data and printing the image data, whereby a copy of the original image input through the image read means can be produced (col. 4, lines 49-58).

Note that the print server can be used to control the data flow (col. 17, lines 37-48).

Also, it should be noted that the parallel processing between the host and the printer inherently uses a plurality of logical channels.

6. With respect to claim 10, Kajita discloses the printer according to claim 9, wherein at least the data flow control means transfers the data by packet communication (col. 8, lines 26-43).

7. With respect to claim 11, Kajita discloses the printer according to claim 10, the printer according to claim 10, wherein the image data read and conversion means sends the converted command to said data reception section intact as a command proper to said printer without further converting the converted command into a packet format (col. 4, lines 51-58 & col. 8, lines 26-43). Since the packet data communication is for the network communication, when the apparatus is used as a local copying machine, it is concluded that converting the converted command into a packet format is not performed.

8. With respect to claim 12, Kajita discloses a print system comprising a plurality of logical channels, wherein data flow between at least a host computer and a printer and data flow between the host computer and a scanner are controlled separately using a plurality of said logical channels (col. 11, lines 36-43), and wherein data flow between the scanner and printer is controlled using normal communication the plurality of logical channels and the normal communication allowing for the print system to respond to a plurality of requests simultaneously (col. 12, lines 13-23).

9. With respect to claim 1, arguments analogous to those presented for claims 9 and 12, are applicable.

10. With respect to claim 21, arguments analogous to those presented for claims 9 and 12, are applicable.

Art Unit: 2622

11. With respect to claim 13, Kajita discloses a data controller to be connected to a host, a printer, and a scanner, said data controller having (i) a data flow control function for controlling transfer of data between the host and the printer and transfer of data between the scanner and the host (col. 11, lines 36-44), and (ii) an image data read and conversion function for reading image data by the scanner without an intervention of the host, converting the image data into data that can be interpreted by a first interpretation section (image processing unit 14) of the printer (col. 4, lines 51-58), and transmitting the converted data to the printer for printing a similar copy to an original image as a local copy,

said data controller comprising:

a second interpretation section having an interpretation capability similar to that of the first interpretation section of the printer (col. 4, lines 59-67),

wherein, when the similar copy to the original image is printed as the local copy, said second interpretation section interprets a command (print request) issued from the host to the printer, and predetermined necessary operation is executed instead of the printer in response to an interpretation result (col. 10, lines 57-63 & col. 22, lines 1-19).

12. With respect to claim 14, Kajita discloses a data controller according to claim 13, wherein at least the data transfer between the host and the printer and the data transfer between the scanner and the host are executed by packet communications (col. 8, lines 26-44).

Claims 4-7, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kajita in view of Kai U.S. Patent No. 5,943,503.

13. With respect to claim 4, Kajita discloses a data controller (control unit 5 in fig. 3) to be connected to a host (computer 2), a printer (15), and a scanner (12), said data controller having (i) a data flow control function for controlling transfer of data between the host and the printer (col. 4, lines 59-67) and transfer of data between the scanner and the host (col. 5, lines 1-11) using a plurality of logical channels (col. 11, lines 36-44), and (ii) an image data read and conversion function for reading image data by the scanner without an intervention of the host, converting the image data into data that can be interpreted by the printer, and transmitting the converted data to the printer using normal communication for printing a similar copy to an original image as a local copy (col. 4, lines 51-58), the plurality of logical channels and the normal communication allowing for the data controller to respond to a plurality of requests simultaneously (col. 12, lines 13-23),

said data controller comprising:

means for receiving a packet of the image data read from the scanner, transmitting the packet to the host, and transmitting packet data received from the host for controlling the scanner to the scanner (col. 8, lines 26-44);

status retention means for inputting and retaining a status of the printer (printing process) from the printer (step 302 in fig. 26 and col. 22, lines 1-19); and

conversion-to-command means (image processing unit 14) for converting image information input from the scanner without the intervention of the host into a command that can be interpreted by the printer (col. 4, lines 51-58 & figs. 5-7).

Kajita, however, does not disclose expressly said controller comprising:

means for being responsive to an inquiry about the status of the printer from the host for receiving the packet indicating the status from said status retention means and transmitting the packet to the host and transmitting packet data received from the host for controlling the printer to the printer.

Kai, the same field of endeavor of the printer control art, discloses a controller comprising:

status retention means for inputting and retaining a status of a printer from the printer (col. 4, lines 34-39 & col. 5, lines 6-13); and

means for being responsive to an inquiry about the status of the printer from a host for receiving the data indicating the status from said status retention means and transmitting the data to the host and transmitting data received from the host for controlling the printer to the printer (col. 6, lines 11-17 and lines 51-67).

Since Kajita teaches the method of exchanging data in the unit of a packet (col. 8, lines 26-43), at the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the printer status acquiring means of Kai with the packet data communication method of Kajita.

The suggestion/motivation for doing so would have been to notify the current status of printer to the host during the parallel process.

Therefore, it would have been obvious to combine Kajita with Kai to obtain the invention as specified in claim 4.

14. With respect to claim 5, Kai discloses said status retention means for inputting and retaining the printer status from the printer periodically (col. 7, lines 1-7 and col. 9, lines 1-13).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate the retaining means for retaining the printer status from the printer periodically into the data controller of Kajita.

The suggestion/motivation for doing so would have been to correctly update the printer status with the latest status change.

Therefore, it would have been obvious to combine Kajita with Kai to obtain the invention as specified in claim 5.

15. With respect to claim 6, Kajita discloses the data controller further comprising data flow regulation means for asynchronously regulating data flow between the host and the printer, data flow between the scanner and the host, and data flow between the scanner and the printer (col. 8, lines 26-44). Further Kajita inherently discloses the featured claimed in claim 6. The Office interprets in such a way since a printer cannot perform printing process for two distinct print data at the same time. Thus, data flow between the scanner and the printer must be halt when the printer is printing the data received or receiving from the host.

Art Unit: 2622

16. With respect to claim 7, Kajita discloses the data controller further comprising a local copy start switch for making it possible to manually start a local copy (copy start key 24 in fig. 4).

17. With respect to claim 16, arguments analogous to those presented for claim 4, are applicable.

18. With respect to claim 17, Kajita further discloses data flow regulation means for monitoring packet flow between the host and the printer and packet flow between the scanner and the host and regulating the packet data flow in response to a destination of each packet (col. 8, lines 26-43).

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kajita as applied to claim 13 above, and further in view of Kai.

19. With respect to claim 15, arguments analogous to those presented for claim 4, are applicable.

Claims 18, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Kajita and Kai as applied to claim 16 above, and further in view of Smilansky et al. U.S. Patent No. 5,339,176 (hereinafter Smilansky).

20. With respect to claim 18, the combination of Kajita and Kai discloses all the limitations of claim 16 but it does not disclose a first scanner for reading a color original image and outputting YMCK binary image data and a second scanner for reading a color original image and outputting RGB full color image data.

As previously stated in the office action dated 4/28/04, Smilansky discloses a first scanner (scanner 114 in fig. 1B) for reading a color original image (128) and outputting YMCK binary image data (134) and a second scanner (116) for reading a color original image and outputting RGB full color image data (130).

Kajita and Smilansky are analogous art because they are from the same field of endeavor that is the color scanner art.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include the color scanner of Smilansky with the digital color copier Kajita (col. 5, lines 59-67 & col. 8, lines 18-20).

The motivation for doing so would have been to generate color image copies by converting the original into either RGB or YMCK image data. Additionally, it would have been to provide a technique and an apparatus for calibrating a color-processing device in a color digital copier.

Therefore, it would have been obvious to combine Kajita, Kai with Kitamura to obtain the invention as specified in claim 18.

21. With respect to claim 19, Smilansky further discloses color image data conversion means for receiving the RGB full color image data (130) from the second scanner (116) and converting the image data into the YMCK binary image data (132).

22. With respect to claim 20, Smilansky fails to disclose data regulation means for discriminating between the YMCK binary image data received from the first scanner and the RGB full color image data received from the second scanner. The reference discloses the direct connection without the intervention of image data flow regulation

Art Unit: 2622

section. However, in the applicant disclosed drawing, first scanner (400A) and second scanner (400B) have their own transmission lines to the data controller. Therefore, it is would have been obvious to one having ordinary skill in the art at the time the invention was made that the image data generated by the first scanner goes to conversion-to-command section without color image data converter and the image data generated by the second scanner goes to conversion-to-command section via color image converter.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over combination of Kajita and Kai as applied to claim 4 above, and further in view of Ohnishi U.S. Patent No. 6,067,169.

23. With respect to claim 8, the combination of Kajita and Kai discloses all the limitations of claim 4 but it does not explicitly disclose if the scanner can read a color original image and output YMCK binary image data.

Ohnishi, on the other hand, discloses a digital color copying machines (103, 104) and scanners (109, 110) connected to a host computer for communicating with one another (fig. 1). It further discloses a data controller (interface device 101) having a CPU (second CPU 209) for controlling transfer of data between a printer and a host computer and transfer of data between a scanner and a host computer (col. 3, lines 37-52). It further discloses a digital copier that is capable of sending current status when a status request is requested by the host computer (col. 7, lines 41-48). Furthermore, it discloses a color scanner for reading color original image and outputting YMCK binary image data (col. 4, lines 16-30).

Kajita, Kai and Ohnishi are analogous art because they are from the same field of endeavor that is the digital printing art.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include the color scanner of Ohnishi with the digital copier of Kajita.

The motivation for doing so would have been to generate color image copies. Therefore, it would have been obvious to combine Kajita with Ohnishi to obtain the invention as specified in claim 8.

Conclusion

24. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 2622


25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHAN S. PARK whose telephone number is (571) 272-7409. The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chan S. Park
Examiner
Art Unit 2622

csp
September 9, 2005


EDWARD COLES
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER